

significant residue occurs sometimes even in the larger features due to (1) interfacial mixing of resist and underlayer (2) diffusion of acid or other components of the resist into underlayer and (3) potential outgassing of components from underlayer into resist.

IN THE CLAIMS

1. (Amended) A method comprising:

disposing on a surface a layer of material;

disposing in said layer of material a resist material;

said layer of material having a crosslink density sufficiently high that said layer of material and said resist do not substantially intermix.

1. (Replacement) A method comprising:

disposing on a surface a layer of material;

disposing in said layer of material a resist material;

said layer of material having a crosslink density sufficiently high that said layer of material and said resist do not substantially intermix.

2. (Amended) A method according to claim 1, wherein said layer of material is [selected from the group consisting of] a novolak.

2. (Replacement) A method according to claim 1, wherein said layer of material is a novolak.

STATUS OF CLAIMS

Claims 1-18 were initially filed in this application. Claims 1-8, 18 and 19 are presently pending therein. Typographical errors are corrected in claims 1, 2 and 18, and claim 19 is added in the Amendment filed with this Appeal. Claims 9-17 were withdrawn as being directed to a non-elected invention. The final rejection of claims 1-8, 18 and 19 provides the basis for this appeal. Claims 1, 18 and 19 are independent claims.

YO998-056

3

Serial No.: 09/256,034

18. (Amended) A method according to claim 1 wherein [the crosslinking] said crosslink density is dependent on [the] processing conditions[-], comprising bake, temperature, time, [as well as] the formulation of said layer of material [underlayer- i.e.], the crosslinker that is put into the formulation, and the amount of said crosslinker. [It is a combination of designed formulation and processing conditions. If the underlayer is not appropriately designed significant residue occurs sometimes even in the larger features due to (1) interfacial mixing of resist and underlayer (2) diffusion of acid or other components of the resist into underlayer and (3) potential outgassing of components from underlayer into resist.]

18. (Replacement) A method according to claim 1 wherein said crosslink density is dependent on processing conditions, comprising bake, temperature, time, the formulation of said layer of material, the crosslinker that is put into the formulation, and the amount of said crosslinker

19. (Added) A method comprising:

disposing on a surface of an electronic device a novolak material;

curing said material to a predetermined degree of crosslinking;

disposing on said novolak material a resist material, said degree of crosslinking being sufficient to substantially prevent said resist material from intermixing with said novolak material;

exposing said resist to a pattern of energy selected from the group consisting of electromagnetic radiation and a particle beam to form a pattern of exposed and unexposed regions in said resist;